

A National Study of Transitional Hospital Services in Mental Health

ABSTRACT

Objectives. Shifts in care for the seriously mentally ill from inpatient to community-based treatment have highlighted the importance of transitional care. Our objectives were to document the kinds and quantity of transitional services provided by psychiatric hospitals nationally and to assess the impact of hospital type (psychiatric vs general), ownership (public vs private), case mix, and revenue source on provision of these services.

Methods. A national sample of nonfederal inpatient mental health facilities (n = 915) was surveyed in 1988, and data were analyzed by using multiple regression.

Results. Half (46%) of the facilities surveyed provided patient follow-up of 1 week or less, and almost all (93%) conducted team review of discharge plans, but 74% provided no case management services. Hospital type was the most consistent predictor of transitional care, with psychiatric hospitals providing more of these services than general hospitals. Severity of illness, level of nonfederal funding, urbanicity, and teaching hospital affiliation were positively associated with provision of case management.

Conclusions. Transitional care services for mentally ill patients leaving the hospital were found to be uneven and often inadequate. Reasons for broad variation in services are discussed. (*Am J Public Health.* 1994;84:1229-1234)

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Introduction

One result of the deinstitutionalization of patients from public mental hospitals in the 1970s was the movement of many patients with severe and persistent psychiatric disorders into general hospitals, effectively mainstreaming the mentally ill into the acute medical care system.¹ Another result was the reorientation of the locus of treatment for less acutely ill patients from inpatient facilities to a myriad of community-based clinical and support services.² There is general consensus among clinical and policy researchers, as well as among service providers, that although initial efforts to make this transition were partially successful, they were also marked by failures, as evidenced by rising readmission rates of the mentally ill to hospitals and a significant number of severely mentally ill individuals among the growing population who were homeless.³ These developments brought a recognition of the lack of horizontal and vertical integration of administrative and financial functions within the mental health care system and acknowledgment that availability of services had been mistakenly equated with access to those services. By the 1980s, there was an emphasis on introducing managed care and central mental health authorities, which were expected to improve continuity and appropriateness of treatment.^{4,5} In the last decade there has also been a shift from a predominantly public responsibility for inpatient mental health care to an increase in the number of patients cared for in private psychiatric hospitals.⁶

The Problem of Continuity of Care

Changes in the delivery system from public to private providership and from specialty hospitals to general hospitals

and community-based services have raised concerns about the accessibility and quality of mental health care, particularly for patients with chronic disorders.^{7,8} In response, both policymakers and service providers have targeted the importance of continuity of care for both clinical and supportive services. The transition from inpatient to community-based care is a particularly important one for psychiatric patients because it is at this point in the treatment system that many patients fail to connect with posthospital caregivers and fail to establish meaningful ties to needed aftercare services.

Although providing continuity of care is considered a critical function in the successful treatment of the seriously mentally ill, little is known about the kind and quantity of such services available to psychiatric inpatients in the United States.^{9,10} This study attempted to discover the nature and amount of transitional services available to the seriously mentally ill when they leave inpatient care to live in the community. In this article, we distinguish transitional services—those specifically designed to link inpatient and ambulatory care—from traditional aftercare services provided in community-based settings.

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The Link between Continuity of Care and Clinical Outcome

Numerous studies have documented the importance of aftercare services in improving the quality of life and reducing clinical symptoms of former psychiatric inpatients. Despite methodological shortcomings in some studies, the overall weight of evidence suggests that recently discharged inpatients who receive some kind of aftercare (e.g., medications psychotherapeutic, occupational, or case management) will function better after leaving the hospital than those who do not.¹¹⁻¹³

Although it has been shown that aftercare services have beneficial effects, getting patients to aftercare is a need that has been largely unmet. Myerson and Herman concluded from their review of aftercare studies that "bridging strategies" were the most important link to satisfactory aftercare.¹⁴ Despite its importance, the transition to aftercare is fraught with geographic, interpersonal, temporal, and logistical obstacles.^{12,15}

In recognition of these difficulties, model treatment programs, such as the Robert Wood Johnson nine-city Demonstration Program,⁴ have been designed specifically to minimize the gaps in treatment and support that characterize the majority of transitions from hospital to community-based services. To do this, model programs provide centrally administered financial, social, and clinical services to the patient. In most local mental health care systems, however, such central administration is not currently in use. In these systems, continuity of care occurs only when a case manager system is in place. Although models of case management vary, the goal in each is to provide continuity of care between treatment settings and to assist in matching services to the needs of each client. Case management is widely regarded as the most effective way to maximize patients' gains.¹⁶⁻¹⁸

Despite this evidence, such services are scarce. A New York State study of discharge planning in psychiatric facilities found that a large percentage of inpatients were referred to mental health clinics (85%), but very few facilities offered case-management services.¹⁹ According to this survey, public specialty hospitals tend to provide more adequate discharge planning than do general hospitals. Services offered included formal discharge planning, psychiatric appointments, day program referral, and monitoring of patient care for more than 6 months

after discharge. Shortell et al.²⁰ surveyed not-for-profit and for-profit system-affiliated hospitals and found that not-for-profit hospitals offered a higher volume of alternatives to inpatient services, including more unprofitable services, than did for-profit hospitals. Clark and Fox demonstrated the cost-effectiveness of case-management services.²¹

Hypotheses

Based on previous research, we anticipated that two structural measures—hospital type (specialty or general) and ownership (private or public)—would influence provision of transitional services. We expected to find that psychiatric (specialty) hospitals would provide transitional care to a greater extent than general hospitals for several reasons. First, the case mix of specialty hospitals (especially public ones) tends to include more chronic and severely mentally ill patients.²⁰ These patients are more likely to require transitional care of greater intensity and duration than that required by acutely ill, short-term patients usually seen in the psychiatric wards of general hospitals. Second, administratively, it is often more feasible for specialty hospitals than for general hospital units to provide transitional care services; follow-up and transitional care can be time consuming for staff and are more easily organized when a high proportion of patients with psychiatric difficulties justifies the assignment of full-time staff for this purpose. We also anticipated that public facilities would provide more transitional services than would private ones. Ownership form has been shown to be related to institutional mission, which is, in turn, correlated with institutional behavior.⁶ Public facilities are expected to see their mission as one primarily of stewardship rather than profitability, thus allowing administrators to make decisions about service mix and staffing based on patient needs.

We anticipated, too, that source of revenues might be related to the provision of transitional services. It has been noted previously that one way in which privatization has affected mental health care providers is that, regardless of ownership, almost all inpatient facilities receive revenue from a variety of sources: contracts with states and counties, Medicaid, Medicare, and private insurers. We expected that those facilities receiving a greater proportion of public revenues would provide the most transitional care. The diagnostic mix of patients treated would

also be related, we thought, to transitional services. Patients with long-term chronic illness, such as schizophrenia, often have greater need for assistance in making the transition to outpatient or community-based facilities than do those with shorter-term difficulty, such as depression.

Methods

The National Mental Health Facilities Study,²² conducted between October 1987 and 1988, was designed to address unanswered questions about the ongoing privatization of mental health services in the United States. The survey consisted of a 200-item questionnaire mailed to some 900 administrators of all nonfederal psychiatric hospitals in the United States, including community mental health agencies with inpatient units, and a 75% random sample of psychiatric units in nonfederal general hospitals. The overall response rate was 60%, ranging from 78% for public specialty hospitals to 38% for for-profit specialty hospitals. A comparison of our findings on revenue sources, case mix, and staffing practices of for-profit specialty hospitals with data from national surveys by the National Institute of Mental Health²³ and the National Association of Private Psychiatric Hospitals yielded overall consistency. A more detailed discussion of sample selection and response rate was published previously.²²

Questions on the survey addressed a broad range of issues concerning hospital ownership status, referral sources, clinical services, patient characteristics including diagnostic mix and payer mix, staffing policies, and treatment monitoring policies. Additional information about area characteristics for each hospital, such as population density, was available from the Department of Commerce's Area Resource File.²⁴ Within this context, the National Mental Health Facilities Study examined the impact of hospital type (specialty vs general), hospital ownership (public vs private), hospital revenue sources, and patient diagnostic mix on the type and duration of transitional care given discharged inpatients.

Dependent Variables

Hospital administrators were asked about six different aspects of their facilities' transitional care practices. A hospital's services included those provided by hospital staff and those contracted through other providers with hospital-administered funds. First, they were asked how

often (on a scale of never, sometimes, often) primary responsibility for ensuring that patients receive aftercare (e.g., psychotherapy, occupational, or case-management services) rested with the hospital as compared with the patients themselves, private practitioners, and state and community agencies; second, whether their facility conducted team review of discharge plans; third, whether staff were exclusively assigned to patient follow-up; fourth, whether case-management services were provided; fifth, whether the average length of follow-up contact lasted 1 week, up to 1 month, up to 6 months, or more than 1 year; and sixth, which of six follow-up methods was the one most often used: (1) patient is given follow-up appointment; (2) patient is given staff help with referral; (3) patient is sent appointment reminder; (4) patient is telephoned by aftercare provider; (5) staff visits aftercare providers; and (6) staff visits patients' homes.

Independent Variables

Each hospital reported the legal form of ownership (public, private non-profit, private for-profit) under which it operated, as well the type of psychiatric unit (general or specialty) and whether the unit was a teaching facility for medical interns and psychiatric residents.

Hospital administrators reported the percentage of total psychiatric patient care revenues from private insurers, Medicare, Medicaid, state and county contracts, and direct payment by patients. Administrators also reported the proportion, by diagnostic category, of inpatients treated in the last year. The percentage of patients diagnosed with schizophrenia was used as an indicator of long-term chronic illness and thus identified the hospitals with a high proportion of those patients most likely to need specific help in making the transition from inpatient care to community-based care (see Table 1).

Statistical Analysis

Several variables were used initially in regression analyses to control for hospital and community characteristics. Generally, the availability of resources of many kinds (including staff and level of staff training) is greater for larger hospitals and for those in more urban areas. To control for these influences, we included a measure of the percentage of the hospital service area population that is urban (Department of Commerce Area Resource File),²⁴ the average daily hospital psychiatric census, and the concentration

TABLE 1—Descriptive Statistics for Independent Variables

	No. of Hospitals	% of Sample
Categorical variables		
Type		
Specialty	349	38.1
General	566	61.9
Ownership		
Public	289	31.6
Private	626	68.4
Residency program		
No	718	78.4
Yes	189	20.6
Continuous variables		
		Mean ± SD
Percentage of patients diagnosed with schizophrenia	902	27.37 ± 18.78
Percentage of hospital revenues from Medicaid	888	18.94 ± 18.92
Percentage of hospital revenues from Medicare	888	20.96 ± 14.88
Percentage of hospital revenues from state and county	886	10.42 ± 23.93
Daily hospital psychiatric census	908	103.64 ± 209.60
Population density in hospital service area	915	75.78 ± 21.02

Note. Response rates to individual questions vary somewhat.

TABLE 2—Transitional Care Services Provided by Psychiatric Hospitals and General Hospital Psychiatric Units (n = 915)

	Frequency, %		
	Psychiatric Hospital (n = 349)	General Hospital (n = 566)	Total (n = 915)
Hospital responsible for ensuring aftercare			
Never	12	17	15
Sometimes	31	38	35
Often	57	45	50
Length of follow-up			
Up to 1 week	32	55	46
Up to 1 month	27	27	27
Up to 6 months	18	10	13
Up to 1 year	23	8	14
Method of follow-up used most often			
Patient given appointment	49	66	59
Staff available to help with referral	19	19	19
Letter sent reminding of patient appointment	4	4	4
Phone follow-up with aftercare provider	15	8	11
Staff visit to aftercare provider	7	2	4
Staff visit to patient's residence	6	1	3
Team review of discharge plan			
No	3	10	7
Yes	97	90	93
Staff assigned exclusively to patient follow-up			
No	30	48	41
Yes	70	52	59
Case management provided			
No	65	79	74
Yes	35	21	26

Note. Response rates to individual questions vary somewhat.

TABLE 3—Regression Analysis of Hospital Characteristics Associated with Providing Transitional Services for Psychiatric Patients

Independent Variable	Dependent Variable									
	Degree of Responsibility for Ensuring Aftercare ^a		Length of Patient Follow-Up ^b		Intensity of Patient Follow-Up ^c		Staff Assigned to Follow-Up (0 = No; 1 = Yes)		Case Management Provided (0 = No; 1 = Yes)	
	β	<i>P</i>	β	<i>P</i>	β	<i>P</i>	Odds Ratio	95% CI	Odds Ratio	95% CI
Hospital type (0 = specialty; 1 = general)	-0.223	.0003	-0.705	.0001	-0.693	.0001	0.26*(-) ^d	0.11, 0.60	0.74	-0.71, 1.12
Hospital ownership (0 = public; 1 = private)	-0.072	.2859	-0.082	.3945	-0.032	.7978	0.66	0.31, 1.42	1.17	0.75, 1.84
Percentage of patients diagnosed with schizophrenia	0.001	.6355	-0.005	.0413	-0.005	.0954	1.00	0.98, 1.02	1.02*(+)	1.01, 1.03
Percentage of hospital revenues from Medicaid	-0.002	.2636	-0.002	.4596	-0.001	.7377	1.00	0.99, 1.02	1.00	0.99, 1.01
Percentage of hospital revenues from Medicare	-0.000	.9037	0.001	.6408	0.000	.9257	1.00	0.98, 1.02	1.01	1.00, 1.03
Percentage of hospital revenues from state and county	-0.003	.0299	-0.003	.1699	-0.004	.1535	0.99	0.97, 1.00	1.01*(+)	1.00, 1.02
Residency program (0 = no; 1 = yes)	0.125	.0509	0.182	.0488	0.233	.0664	0.61	0.30, 1.26	0.57*(+)	0.38, 0.86
Daily hospital psychiatric census	-0.000	.0877	-0.000	.3815	0.000	.5568	1.00	1.00, 1.00	1.00	1.00, 1.00
Percentage of urban population in service area	0.003	.0171	0.002	.3538	0.003	.1880	0.99	0.98, 1.00	1.00	0.99, 1.00

Note. Data in ordinal form were treated as continuous and analyzed by using multivariate least squares regression. For these data, beta coefficients with corresponding *t* statistics are presented. Categorical data were analyzed by using logistic regression. For these data, odds ratios have been computed based on regression coefficients. CI = confidence interval.

^aAdjusted $R^2 = .027$.

^bAdjusted $R^2 = .091$.

^cAdjusted $R^2 = .059$.

^dSign indicates the direction of the relationship between dependent and independent variables.

* $P \leq .05$.

of psychiatrists. The size of the hospitals' service area (as defined by hospital administrators) was also included because facilities serving a very large geographic area (e.g., a state or region) were presumed to have difficulty providing as much transitional care as those serving smaller areas, regardless of patients' needs or revenue sources. Of these, average daily psychiatric census neared significance as a positive predictor of the provision of case management ($\beta = .0008$, $P = .09$); degree of urbanicity was significant as a positive predictor of hospital responsibility for aftercare ($\beta = .003$, $P = .017$). These two variables were included in further analyses.

Regression Analysis

Regression analyses were used to examine the impact of the independent variables described above on the provision of transitional care. Dependent variables measuring hospital responsibility for aftercare, length of follow-up, and inten-

sity of follow-up are ordinal and were analyzed by using a multivariate least squares regression model. Logistic regression was used in the analysis of categorical variables: assignment of full-time staff to patient follow-up and the provision of case management. For these variables, odds ratios and 95% confidence intervals were calculated based on the regression coefficients. Because almost all facilities surveyed (93%) provided team review of patient discharge plans, this variable was not included in the bivariate or multivariate analyses.

An additional series of regression analyses was done excluding hospitals that reported "never" taking responsibility for ensuring aftercare. We were interested to see if once a hospital has made a commitment to ensuring aftercare, the pattern of factors influencing transitional care might be different from those affecting all hospitals, including those that report never taking responsibility (15% of the current sample). Interestingly, the

results were virtually identical to those found for the entire sample.

Results

Descriptive Statistics

Table 2 presents a profile of the kind and quantity of transitional care services available in specialty and general hospitals. Case management, generally regarded as the most clinically effective form of transitional care, was provided by only 26% of respondents. Seventy-three percent reported follow-up of discharged patients for 1 month or less; only half (54%) reported follow-up of more than 1 week. To address overlap between hospitals that reported assigning staff exclusively to patient follow-up and those that reported providing case management, we did additional analyses. These showed that 35% of the sample provided neither case management nor full-time follow-up

staff; 40% had full-time follow-up staff but did not provide case management.

We found that almost all inpatient facilities surveyed (93%) conducted a team review of patients' discharge plans; however, there is a great deal of variation among hospitals in how discharge plans are carried out. Over half (59%) of the facilities had staff assigned exclusively to patient follow-up, but when asked how often the hospital (vs the patient or the physician) took responsibility for ensuring aftercare, 35% answered "sometimes" and 50% answered "often." When asked what method of follow-up was used most often, 78% reported that their hospital either set up initial aftercare appointments for patients or made a staff person available to help with a referral.

Regression

Hospital type (psychiatric vs general) was by far the strongest determinant of transitional care practices (Table 3). After controlling for case mix, among other factors, psychiatric hospitals reported taking more responsibility than did general hospital psychiatric units for ensuring that patients received aftercare ($\beta = -.223$, $P = .0003$). Psychiatric hospitals also provided follow-up for patients for a longer period ($\beta = -.705$, $P = .0001$), and used more intensive methods of follow-up ($\beta = -.693$, $P = .0001$). Specialty hospitals also were more likely to assign full-time staff to follow-up ($\beta = -.809$, $P = .0001$).

The provision of case management was not predicted by hospital type. It was, however, associated positively with severity of patient illness (percentage diagnosed as schizophrenic) ($\beta = .021$, $P = .0001$). The level of state mental health funding (other than Medicaid) ($\beta = .010$, $P = .0005$) was also a positive predictor and may be an index of severity of illness.

Duration of follow-up, although most strongly and positively associated with hospital type, was also negatively predicted by severity of illness ($\beta = -.005$, $P = .041$); that is, the greater the percentage of patients with schizophrenia in a facility, the shorter the average length of follow-up care provided. Offering residency training was positively related to four of the five transitional care indices: length of follow-up ($\beta = .182$, $P = .05$), hospital responsibility for ensuring aftercare ($\beta = .125$, $P = .054$), intensity of follow-up methods ($\beta = .232$, $P = .051$), and provision of case management ($\beta = .511$, $P = .006$). Level of funding from the

state was negatively associated with level of hospital responsibility ($\beta = -.003$, $P = .03$).

Discussion

Not surprisingly, the type of hospital (specialty vs general) strongly influences how the institutions' managers perceive their role and affects their willingness to provide transitional care. Specialty hospitals tend to be freestanding hospitals located at a distance from other health care services; nonetheless, they often serve as referral centers and provide both acute and long-term services, as well as more specialized treatment programs. They usually are familiar with the range of services needed by their patients and work with the local service provider network. Although specialty hospitals have varied arrangements for providing ambulatory care, these facilities generally can provide ongoing treatment by their medical staffs or can help negotiate treatment by professionals in the community.

General hospitals, on the other hand, often view psychiatric services as a small part of their overall activity and usually treat only acute cases on relatively small (e.g., 20-bed) units. These units are part of a larger health care institution and community-care system that tends to be located in an urban area. General hospitals, therefore, often depend on local providers, such as community mental health centers, to take over postdischarge treatment. A notable exception to this trend is that 36% of facilities providing case management were nonprofit general hospitals. That could reflect the mainstreaming of the mentally ill to the acute medical care system. In all, these characteristics related to type predominate over ownership form per se in determining the hospital's behavior in providing transitional services. A special case is the public (state or county) mental hospital, which provides primarily intermediate and long-term care; after prolonged efforts by state governments to deinstitutionalize, many now place heavy emphasis on aftercare.

Case management generically may be viewed as the most intensive and assertive form of transitional or bridging services. We find that despite its importance in the eyes of family members, policymakers, managed care companies, and community mental health clinicians, this service is not very widely employed by hospitals—only 26% provide it, perhaps because it was a largely "non-reimbursable" service at the time of the study.

We found that transitional care was most likely to be available when the institution had a high number of patients who were severely ill (e.g., schizophrenia) and that there were strong correlations between this variable and the provision of case management. The reliance on relatively short-term follow-up and little patient contact to establish aftercare (Table 1) suggests that hospitals may recognize the need for follow-up but invest relatively few resources in doing it. Some of the factors associated with more efforts across the board to provide transitional care were the presence of state or county contracts for care, larger units, location in urban areas, and the presence of a residency training program. Apparently, teaching hospitals believe that providing transitional services is an important part of learning about clinical practice and they may allow additional staff time and incentives to follow patients as part of the training experience.

Conclusion

A national survey of mental health facilities found that transitional care services for mentally ill patients leaving the hospital were uneven and disappointing. Although there is widespread recognition of the need for providing transitional care services, there is also wide variability in the extent and willingness of hospitals to take responsibility for, and intensively implement, measures to ensure effective aftercare. Financial barriers appear to play a critical role. Hospitals that have a high proportion of patients with severe and persistent disorders and that receive nonfederal public funding for providing services are more likely than others to provide intensive follow-up, including case management. Although mental health care providers are increasingly influenced by pressures to economize, it is important that they remain aware of the need for structured, intensive, and specific transitional care interventions for all psychiatric patients. Private as well as public funding sources must recognize that appropriately designed incentives can play a role in encouraging institutions to provide this type of service. For public facilities, better transitional and aftercare services can reduce readmission rates and reduce costs. For private hospitals, changes in the financing of mental health care toward network and capitation arrangements under managed care systems should create new incentives to do likewise. To ensure adequate aftercare and case-management

services for severely mentally ill persons, national health care reform proposals should either provide for reimbursement (in the manner of current Medicaid programs) or else explicitly mandate responsibility for such services to state mental health authorities.²⁵ □

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References

1. Fisher WH, Dorwart RA, Schlesinger M, Epstein S, Davidson H. The privatization of inpatient treatment for the seriously mentally ill: assessing the roles of public and private general hospitals. *Hosp Community Psychiatry*. In press.
2. Bellack AS, Mueser KT. A comprehensive treatment program for schizophrenia and chronic mental illness. *Community Mental Health J*. 1986;22:175-189.
3. Fisher WH, Geller JL, Altaffer F, Bennett MB. The relationship between community resources and state recidivism. *Am J Psychiatry*. 1992;149:385-390.
4. Shore MF, Cohen MD. The Robert Wood Johnson Foundation program on chronic mental illness: an overview. *Hosp Community Psychiatry*. 1990;41:1212-1216.
5. Dorwart RA. Managed mental health care: myths and realities in the 1990's. *Hosp Community Psychiatry*. 1990;41:1087-1091.
6. Dorwart RA, Schlesinger M. Privatization of psychiatric services. *Am J Psychiatry*. 1988;145:543-553.
7. Mechanic D. Managed care for the seriously mentally ill. *Am J Public Health*. 1992;82:788-789. Editorial.
8. Fisher WH, Dorwart RA, Schlesinger M, Davidson H. Contracting between public agencies and private psychiatric inpatient facilities. *Med Care*. 1991;29:766-774.
9. Bachrach L. The challenge of service planning for chronic mental patients. *Community Mental Health J*. 1986;22:170-174.
10. Torrey EF. Continuous treatment teams in the care of the chronically mentally ill. *Hosp Community Psychiatry*. 1986;37:1243-1247.
11. Siegel C, Alexander MJ, Lin S. Severe alcoholism in the mental health sector, II: effects of service utilization on readmission. *J Stud Alcohol*. 1984;45:510-516.
12. Solomon P, Gordon B, Davis JM. Reconceptualizing assumptions about community mental health. *Hosp Community Psychiatry*. 1986;37:708-712.
13. Rosenfield S, Canton C, Nachumi G, Robbins E. Closing the gaps: the effectiveness of linking programs connecting chronic mental patients from the hospital to the community. *J Appl Behav Sci*. 1986;22:411-423.
14. Myerson AT, Herman GS. What's new in aftercare? A review of recent literature. *Hosp Community Psychiatry*. 1983;34:333-342.
15. Herman NJ, Smith CM. Mental hospital depopulation in Canada: patient perspectives. *Can J Psychiatry*. 1989;34:386-391.
16. Robinson GK, Toff-Bergman G. *Choices in Case Management: Current Knowledge and Practice for Mental Health Programs*. Washington, DC: Mental Health Policy Resource Center; 1990.
17. Surles RC, Blanch AK, Shern DL, Donahue SA. Case management as a strategy for systems change. *Health Affairs*. Spring 1992;11:151-163.
18. Bachrach LL. Continuity of care and approaches to case management for long-term mentally ill patients. *Hosp Community Psychiatry*. 1993;44:465-468.
19. *Admission and Discharge Practices of Psychiatric Hospitals*. Albany, NY: New York State Commission on Quality of Care for the Mentally Disabled; April 1988.
20. Shortell SM, Morrison EM, Hughes SL, Friedman B, Coverdill J, Berg L. The effects of hospital ownership and the practice of medicine. In: Gray BH, ed. *For-Profit Enterprises in Health Care*. Washington, DC: National Academy Press; 1986:402-421.
21. Clark RE, Fox TS. A framework for evaluating the economic impact of case management. *Hosp Community Psychiatry*. 1993;44:469-473.
22. Dorwart RA, Schlesinger M, Davidson H, Epstein S, Hoover C. A national study of psychiatric hospital care. *Am J Psychiatry*. 1991;148:204-210.
23. Redick RW, Stroup A, Witkin MJ, et al. *Private Psychiatric Hospitals, United States: 1983-84 and 1986*. Rockville, Md: NIMH Division of Biometry and Epidemiology, Survey and Reports Branch; October 1989. Mental Health Statistical Note 191.
24. Office of Data Analysis and Management, Bureau of Health Professions, US Department of Commerce. *User Documentation for the ODAM Area Resource File (ARF)*. Springfield, Va: National Technical Information Service; March 1988.
25. Health Security Act, § 1757, 103d Cong, 1st Sess (1993).

Call for Abstracts for Injury Control Late-Breaker Session

The Injury Control and Emergency Health Services Section of the American Public Health Association will again feature a late-breaker session during the APHA annual meeting October 30 through November 3, 1994, in Washington, DC. The session will be held on Thursday, November 3, at 8:30 AM and will feature work completed within the last few months, after the deadline for consideration in the regular symposia of the meeting.

Abstracts of 250 words or fewer will be accepted by the

section until *September 10, 1994*. No special form is required. Please send or fax the abstract, title of paper, author's name, address, telephone, and fax number to Rick Waxweiler, National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, 4770 Buford Hwy, NE, Mail Stop F41, Chamblee, GA 30341; tel (404) 488-4031; fax (404) 488-4338. All submitters will be notified of decision by fax by September 24.